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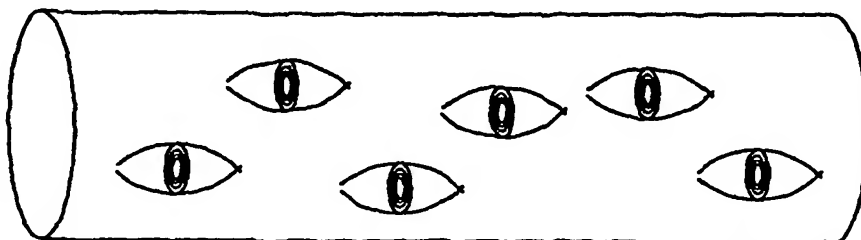
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(54) Title: **SYNTHETIC, BIOABSORBABLE POLYMER MATERIALS AND IMPLANTS**



(57) Abstract: The invention relates to synthetic, bioabsorbable polymer materials and implants, like fibres, sutures, meshes and other tissue management, wound closure or tissue engineering devices, which contain: a) a bioabsorbable polymeric matrix; b) antibiotic and/or anti-inflammatory agent particles or mixture thereof, dispersed in

the matrix, and c) optionally an additive agent to facilitate device recognition and/or handling to facilitate the use and application of finalized product. In the matrix, cavities around the particles are induced by mechanical processing of the matrix phase. A preferred embodiment of the present invention is a device (suture) that provides a sustained release of antibiotic agent over several days to several weeks for the prevention or treatment of infection. The sutures may be effectively implanted into or in the vicinity of: 1) infected tissue, 2) potentially infected tissue, or in tissues where infection, should it occur, leads to disastrous consequences.

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